

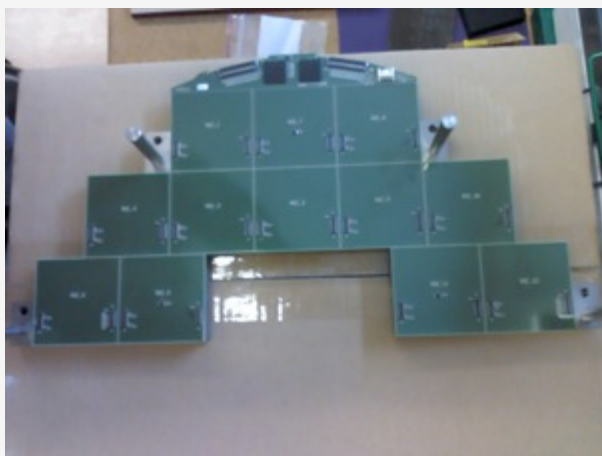
PHENIX WEEKLY PLANNING



Sep. 26, 2013
Don Lynch

This Week

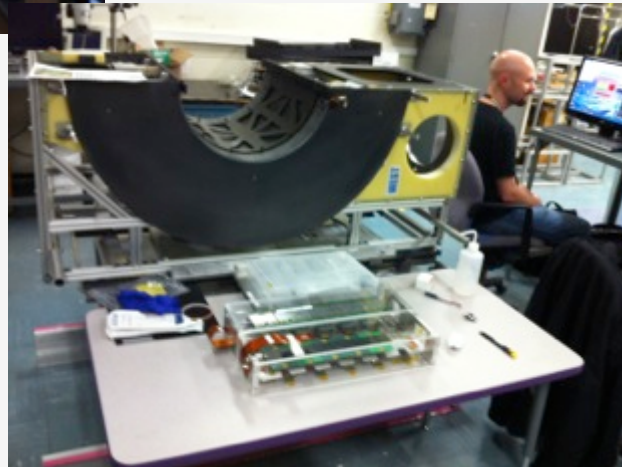
- Finish disassembly of MMN scaffolding
- All Pixel ladders ready for installation
- Finish building VTX strip-pixel staves
- Begin assembling VTX East half
- Finish RPC1 South troubleshooting/repairs
- Continue MPC-Ex installation prep & design/fabrication of assembly fixtures & components
- Continue Installing Window Washer Winch
- Continue sPHENIX support
 - ESR Approval (for Hi-Bay prototype assembly and testing)
 - HCal prototype
 - EMCal prototype design continuing
- Future IR evolution modeling



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Next Week

- Close out MMS and MMN MuTr WP's
- All Pixel ladders ready for installation
- Finish assembly and testing of VTX West Strip-pixel ladders
- Remove Station 1 South Scaffolding
- Upgrade MuTr flow distribution behind south MMS
- Re-install Station 1 south scaffolding
- Begin upgrading VTX/FVTX supply/return lines to stainless
- Continue MPC-Ex installation prep & design/fabrication of assembly fixtures & components
- Continue Installing Window Washer Winch
- Continue sPHENIX support
 - Build 1 tower of small HCal for fit up testing
 - HCal prototype
 - EMCal prototype design continuing
- Future IR evolution modeling



VTX/FVTX

Stave production completed
Begin assembling FVTX/VTX

Strip-pixel ladder production and
testing in progress

VTX halves next week



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VTX & FVTX Remaining Tasks

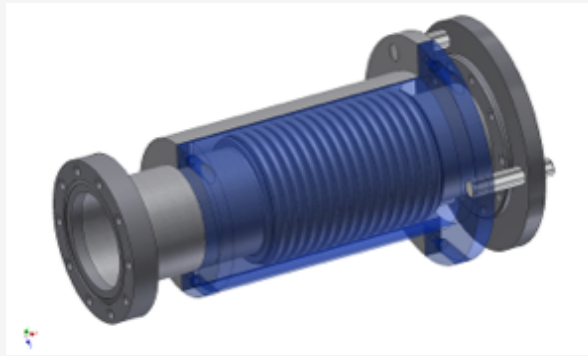
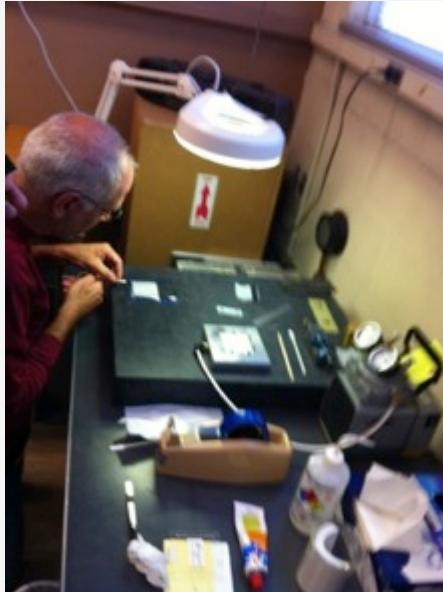
Receive remaining strippixel stave components	Done
Assemble & test strippixel staves	Done
Integrate staves & electronics & test	by 10/1
Receive remaining pixel ladders	Done
Test pixel ladders	Done
Assemble East & West VTX & test	by 10/20
Transport FVTX to Chemistry building.	By 10/21
Integrate FVTX Integrated into East & West VTX.	By 10/25
Survey VTX/FVTX assembly	By 11/8
Transport VTX&FVTX assembly to PHENIX and install on rails.	11/11
Re-install coolant and N ₂ lines, LV, signal and HV cables and fibers	by 11/25
Re-survey full detector in IR	by 11/27
Re-commission VTX & FVTX	by 1/1/14

DC East & West Repairs Summary of Tasks

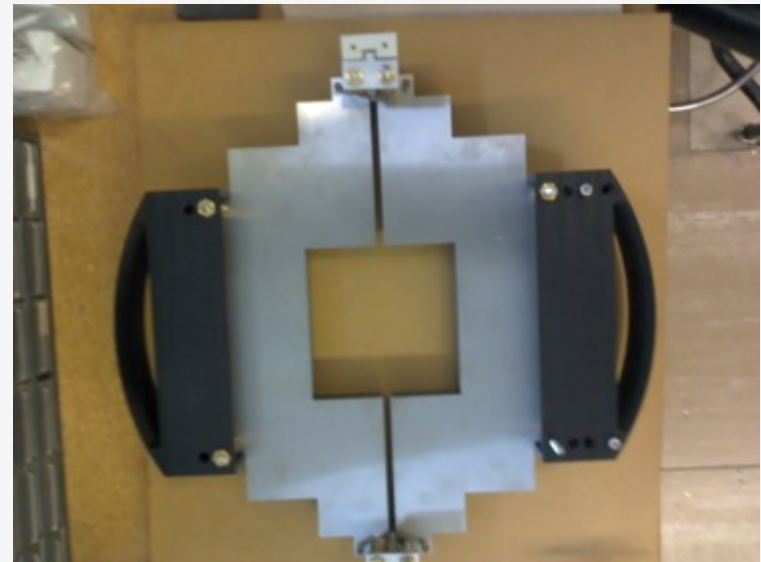
PHENIX
STATION

- East Carriage move to AH - Done
- Work Permit - Done
- Design & Construct tent (similar to tent constructed for DC West last year) to prevent foreign material from entering DC East cavity while window is removed. - Done
- CAD to provide 2 vertical manlifts to allow DC experts to remove and replace window - Done
- Get supplies and materials from Stony Brook for window replacement - Done
- Troubleshooting and repairs on DC West - Done
- Supply Gas, DAQ and Electric to EC East - Done
- Isolate and repair leak on DC East - Done
- Remove and replace window - Done
- Isolate and repair leak under electronics card - Done
- Leak test - Done
- Operational tests - Done
- Remove tent and manlift - Done
- DC West broken wire removal - 12/15 - 12/30

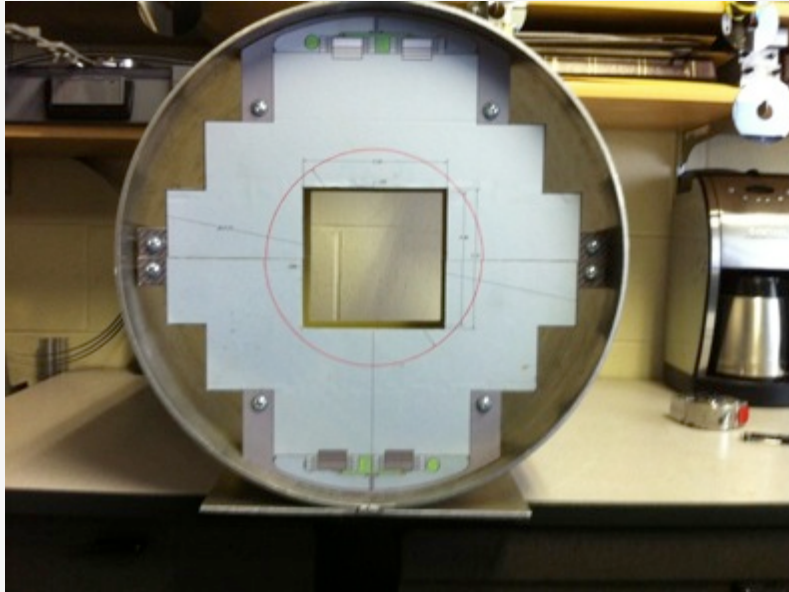
MPC-Ex Initial (Partial) Installation



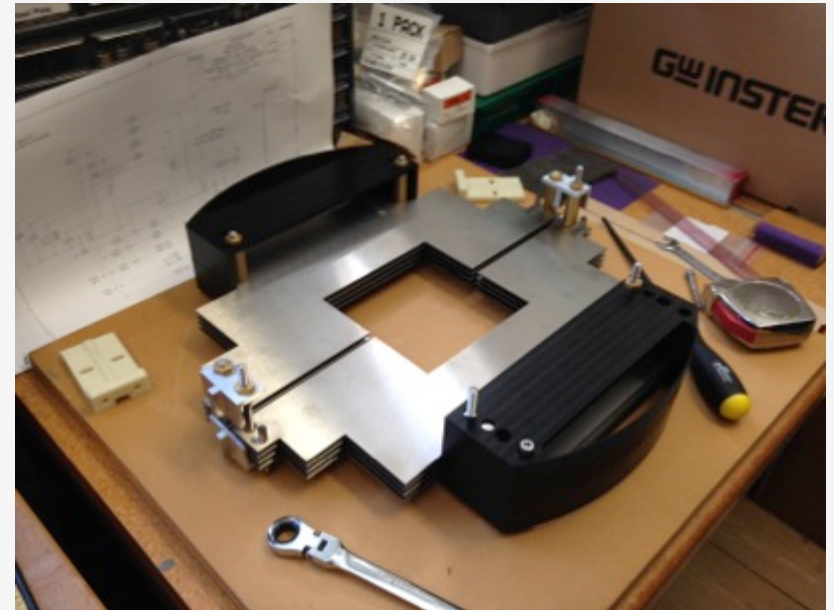
Design vacuum bellows anti-squirm in MPC S Cavity to accommodate MPC-Ex. Part is done needs to be "adjusted". Adjustment fixture in progress



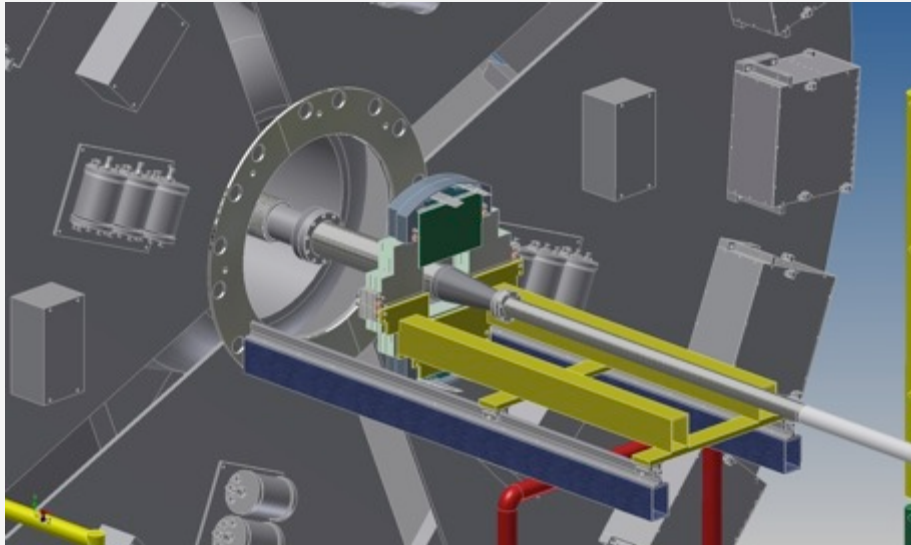
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MPC-Ex mockup to be used for cable and utilities routing plans



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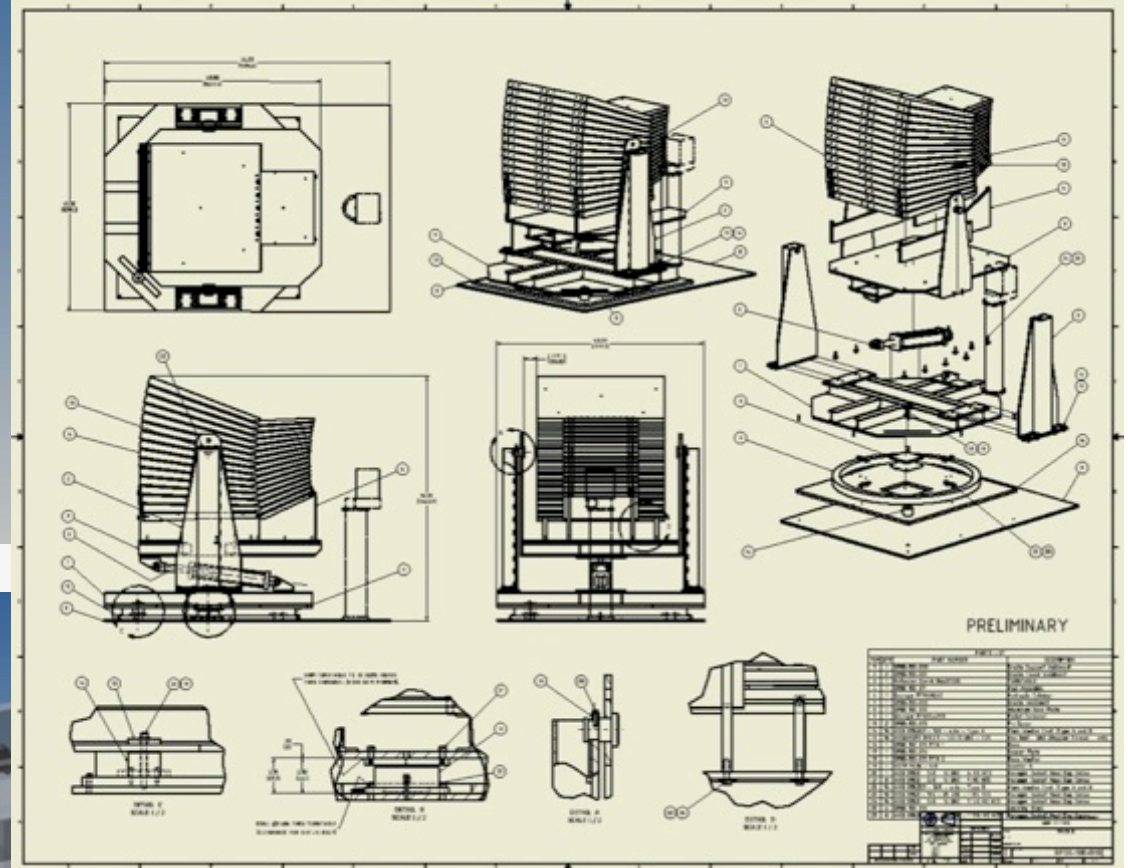
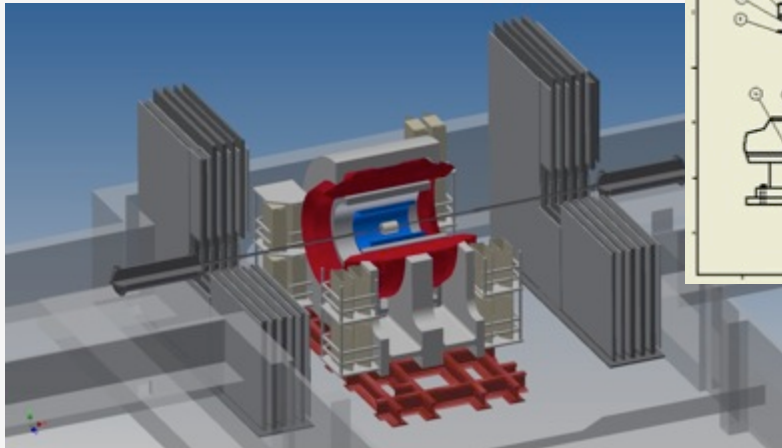
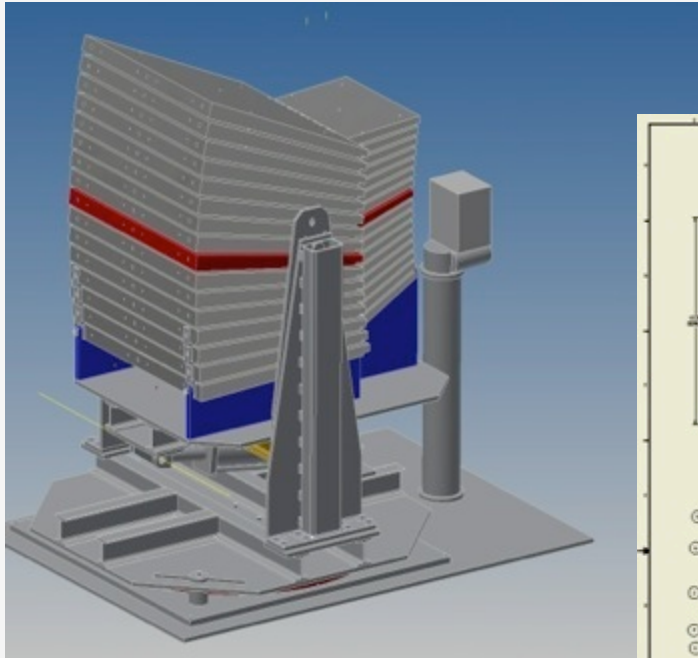


Installation fixture design
completed out for fabrication/
procurement

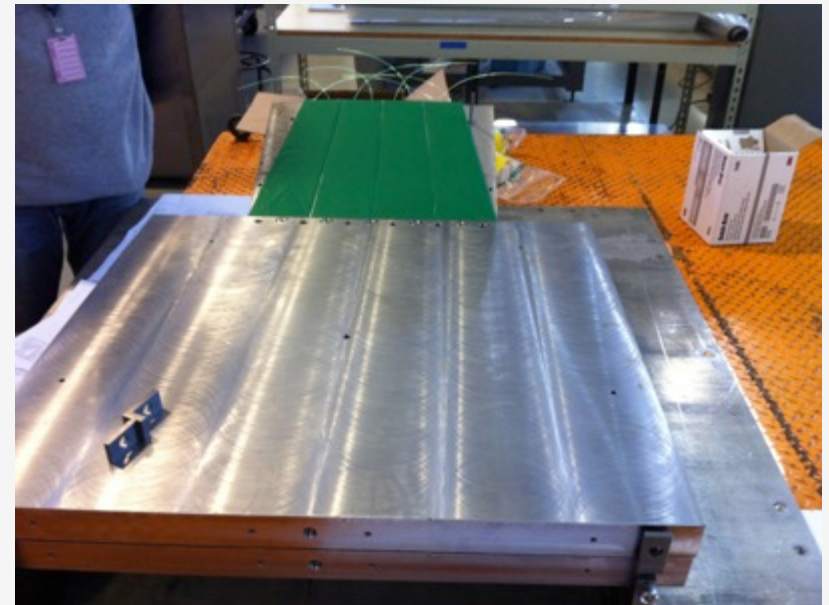


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PHENIX PROTOTYPING

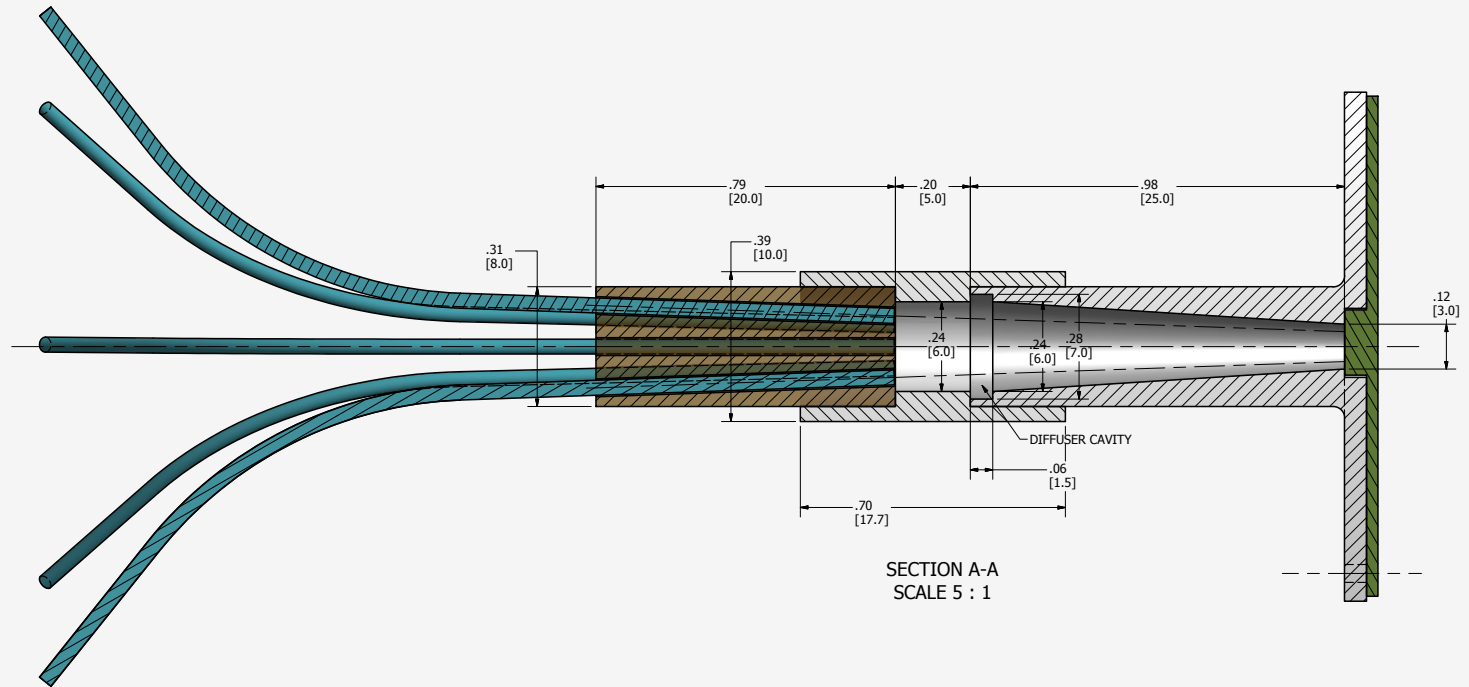


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Hi-Bay Prototype Assembly Area

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Light Collection for HCal

sPHENIX Prototype Assembly and Test Tasks

TECHNICAL SUPPORT NOTES

Design Hcal and EMCal Prototypes and support components and shipping crates - **in progress**

Procure materials and detail parts - **in progress**

Receive and inspect parts

Assemble prototypes

Test assemblies for mechanical fit and function

Package and ship prototypes to FERMI Lab for performance tests

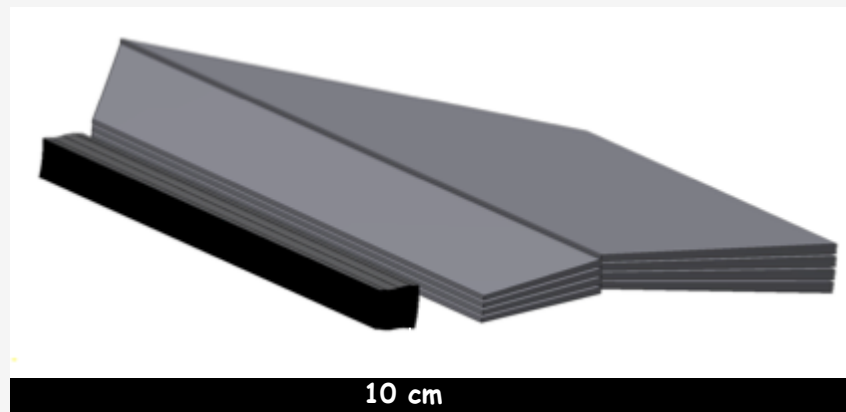
Test and Evaluate at Fermi Lab

EMCal Prototype

Prototype accordion plates with fibers produced as part of SBIR. EMCal for test beam will be flat tapered plates
Assembly drawings in progress



Prototype "Egg Carton"
light collection

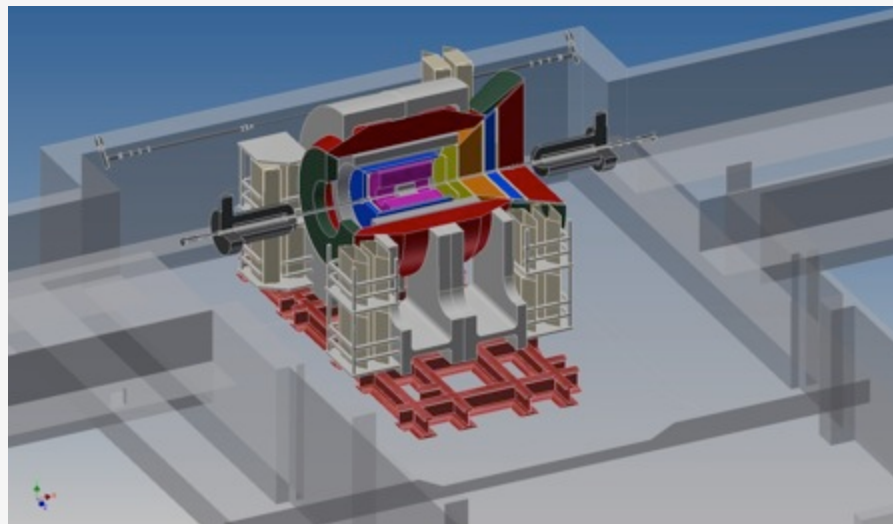
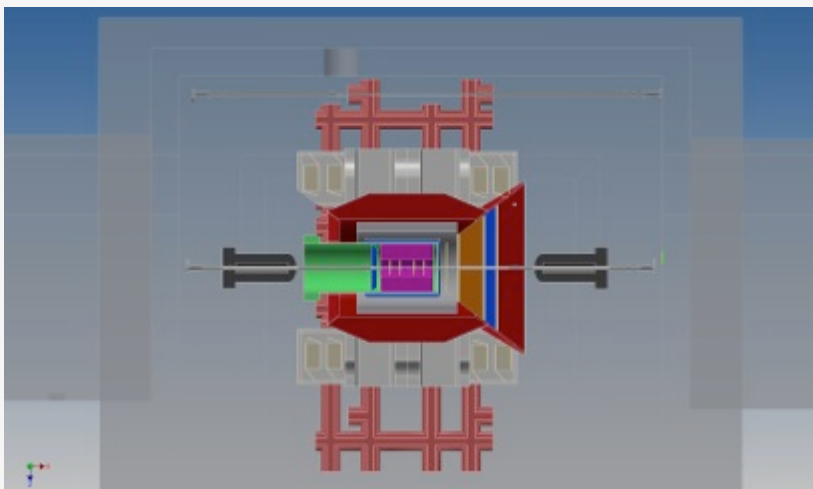


Proto-type EMCal in front of
proto-type HCal

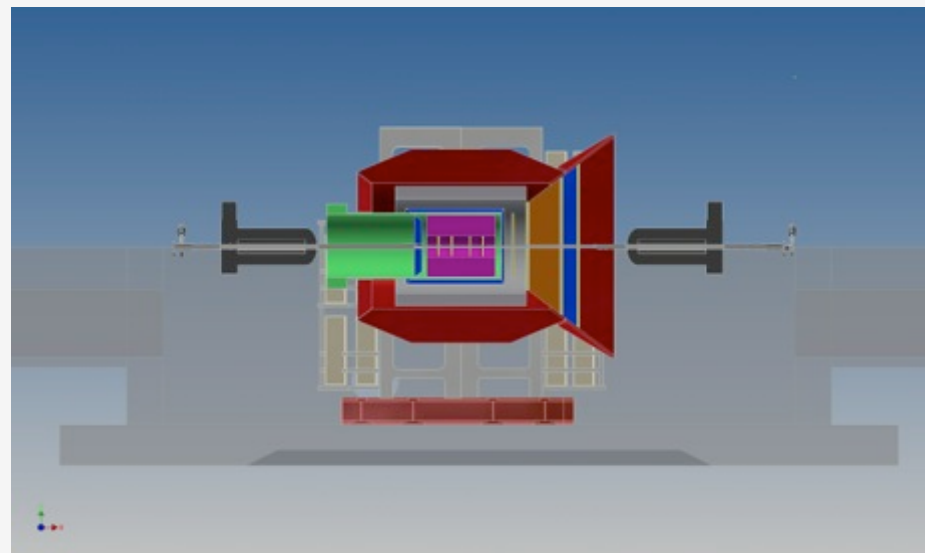
(Photos from Eric slides, from
Craig and Sean slides)

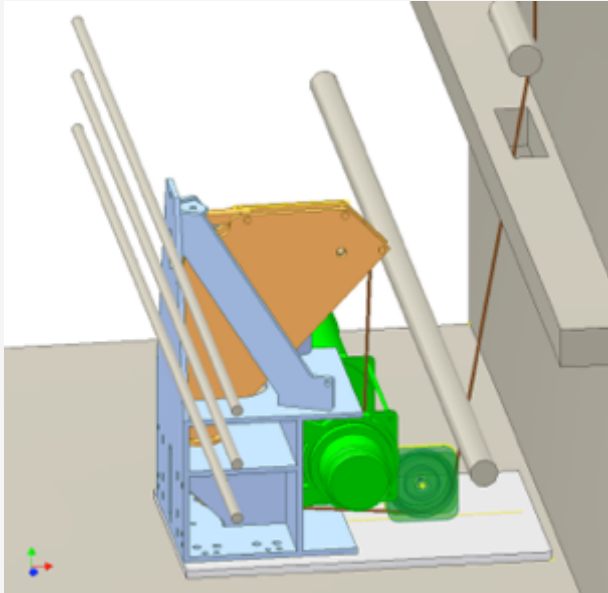
ePHENIX

Plan View

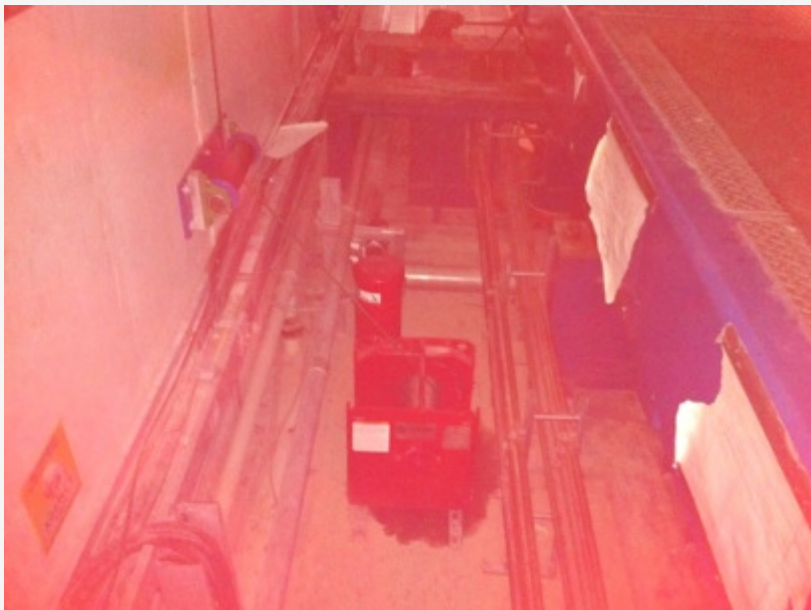


Elevation View





Window Washer Winch Upgrade



WWW mounted and ready for install.

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Window Washer Winch Upgrade Summary of Tasks

Receive and Inspect winch and components - Done

Design and Fabricate Winch & Sheave Base - Done

Install and test Winch, integrate with window washer hardware, controls and power

Final Inspection and approval of window washer upgrade

(Note: remote safety pin insertion and retraction was installed and has been in operation since the start of run 13.)

Alcohol Chiller Work For Shutdown 2013



Merlin Chiller

➤Chiller supplied about ½ the flow as in the past.

- Pressure on chiller says ~70-80psi
- Install gauge on supply line and measure actual output pressure.
- Replace chiller with spare if needed.
- Send old chiller out for maintenance or replace.

New Chiller Received.

Re-Insulate Glycol lines



❖Remove old polyethylene insulation and wrap and replace with foam rubber insulation.

- Temp of fluid is affected too much by temp change in the gas house.
- Lines are condensing and dripping because of gaps in insulation.

Additional Shutdown Work

- ZDC Remove, Test, Recalibrate



Access on South side enhanced by shielding removal for DX magnet repositioning effort. Overhead cranes can now be used with existing fixture to remove ZDC modules

TECHNICAL SUPPORT NOTES

2013 Shutdown Schedule

PHENIX
2013
Shutdown
Schedule

Prep for 2013 shutdown	Done
Design, Fabricate MPC-Ex	
Define tasks and goals	
Analysis and design of fixtures, tools and procedures	
Fabricate/procure tools and fixtures	
Tests, mockups, prototypes	
Receive, fabricate, modify, finish installables	
Review and approval of parts, tools, fixtures and procedures	
Assembly and QA tests	
VTX Strippixel redesign	Done
VTX Strippixel 1 st article stave assembly	Done
VTX Strippixel 1 st article qualification/performance tests	Done
VTX Strippixel sensor reclamation	Done
Run 12 Ends	Done
Shutdown Standard Tasks	Done
• Open wall, disassemble wall, Remove MuID Collars	
• Move EC to AH, etc.	
VTX/FVTX Post run tests	Done
Disassemble VTX/FVTX services	Done
July 4 th Holiday	Done
Remove VTX/FVTX and transport to Chemistry Lab	Done
Remove Lampshade MMS, East Vertical	Done
VTX strippixel stave production	Done
Pixel Ladder repairs	Done
VTX Strippixel ladder assembly & Test	7/15-9/27/2013
Assemble, Test and Install MPC-Ex (Partial, location TBD)	7/22-11/15/2013

MuTR Troubleshooting, maintenance and repairs	Done
Summer Sunday (8/4) Prep and teardown	Done
Summer Sunday (RHIC)	Done
DC West troubleshooting & Repairs	Done
DC East Window Upgrade and Related Repairs	Done
sPHENIX HCal Prototype Assembly/test	8/19-12/31/2013
Re-assemble VTX/FVTX halves	8/19-10/20/2013
Test, survey (at Chemistry and IR) and re-install VTX/FVTX	10/21-11/11/2013
Install & Survey VTX/FVTX in 1008 IR	11/11-11/25/2013
VTX Commissioning	11/25-12/31/2013
Other detector maintenance as required	As required
Infrastructure maintenance as required	As required
Pre-run commissioning and prep for run 14	11/25-12/31/2012
Veterans Day, Lab Holiday	11/11/2013
Prep for EC roll in	11/1-11/22/2013
Roll in EC	11/25-11/27/2013
Prep IR for run	11/1-11/30/2013
Thanksgiving Holidays	11/28-29/2013
Pink/Blue/White sheets	12/14-12/31/2013
DC West wire repairs	12/15-12/30/2013
Christmas Holiday	12/24-25/2013
New Year's Day Holiday	1/1/2014
Start run 14	1/2/2014

Safety and Security

TECHNICAL SUPPORT TEAM

From Ray Karol: Nothing this week

Injury and incident Report: None this week

Training Report: To be sent out today: Pretty much up to date

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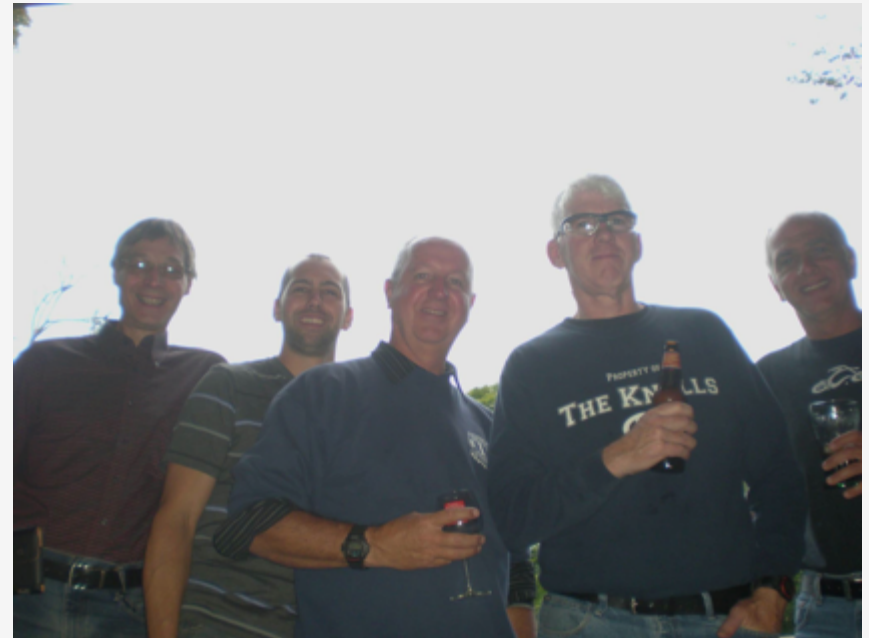
Where To Find PHENIX Engineering Info

This Week is:

Banned Books Week
Deaf Awareness Week
National Dog Week
National Keep Kids Creative Wee
Remember to Register to Vote Week
Sea Otter Awareness Week
Tolkien Week

Today is:

Johnny Appleseed Day
Shamu the Whale Day
World Maritime Day
National Pancake Day



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

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